the corresponding measure of signal variability, intermittently, during operation of the agricultural machine, the control system controlling the plurality of different subsystems based on the deadband corresponding to each of the sensor signals.

[0099] Example 19 is the agricultural machine of any or all previous examples wherein the deadband identifying system comprises:

[0100] a signal characteristic capturing component configured to capture a set of discrete sensor signal values for a given one of the sensor signals over a given time period; and

[0101] a deadband calculating component configured to calculate a standard deviation of the discrete sensor signal values as the measure of signal variability.

[0102] Example 20 is the agricultural machine of any or all previous examples wherein the deadband identifying system comprises:

[0103] a signal characteristic capturing component configured to capture a set of discrete sensor signal values for a given one of the sensor signals over a given time period; and

[0104] a deadband calculating component configured to calculate the measure of signal variability as at least one of: kurtosis, variance, skewness or range of the discrete sensor signal values.

[0105] Although the subject matter has been described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described above. Rather, the specific features and acts described above are disclosed as example forms of implementing the claims.

What is claimed is:

1. An agricultural machine, comprising:

a plurality of different subsystems, each performing a function of the agricultural machine;

a plurality of different sensors that sense variables and generate sensor signals indicative of the sensed variables;

a deadband identification system that identifies a deadband corresponding to each of the sensor signals; and

a control system that generates action signals for controlling the plurality of different subsystems, based on the sensor signals and the deadbands.

2. The agricultural machine of claim **1** wherein the deadband identification system comprises:

a signal characteristic capture component that captures a signal characteristic of a given one of the sensor signals over a given time period.

3. The agricultural machine of claim **2** wherein the deadband identification system comprises:

a deadband identifier that identifies a given deadband corresponding to the given sensor signal based on the captured signal characteristic of the given sensor signal.

4. The agricultural machine of claim **3** wherein the signal characteristic capture component is configured to capture a set of discrete sensor signal values for the given sensor signal, as the signal characteristic.

5. The agricultural machine of claim **4** wherein the deadband identifier comprises:

a statistical calculation component that statistically identifies a measure of signal variability of the given sensor signal based on the discrete sensor signal values and that identifies the given deadband based on the measure of signal variability.

6. The agricultural machine of claim **5** wherein the statistical calculation component is configured to calculate a standard deviation of the discrete sensor signal values as the measure of signal variability and to identify the given deadband based on the standard deviation calculated.

7. The agricultural machine of claim **5** wherein the statistical calculation component is configured to calculate the measure of signal variability as at least one of: kurtosis, variance, skewness or range of the discrete sensor signal values.

8. The agricultural machine of claim **4** wherein the deadband identifier comprises:

a transform component that transforms the given sensor into a frequency domain;

a frequency component identifier that identifies frequency components to be filtered; and

a filter that filters out the identified frequency components from the given sensor signal to obtain a filtered sensor signal, the control system generating the action signals based on the filtered sensor signal.

9. The agricultural machine of claim **3** wherein the deadband identification system dynamically identifies the deadband corresponding to each of the sensor signals, intermittently, during operation.

10. The agricultural machine of claim **1** wherein the agricultural machine comprises a combine and wherein the plurality of subsystems include one or more of a threshing subsystem, a propulsion subsystem, a separating subsystem, a front end equipment subsystem, a material handling subsystem and a residue handling subsystem.

11. A method of controlling an agricultural machine, comprising:

sensing a plurality of different variables;

generating a plurality of different sensor signals, each indicative of a corresponding sensed variable;

automatically identifying a measure of signal variability corresponding to each of the different sensor signals; and

generating action signals to control a plurality of different subsystems on the agricultural machine, based on the sensor signals and the identified measure of signal variability.

12. The method of claim **11** and further comprising:

identifying a deadband corresponding to each sensor signal based on the corresponding measure of signal variability, intermittently, during operation of the agricultural machine.

13. The method of claim **12** wherein generating action signals comprises:

generating the action signals based on the deadband corresponding to each of the sensor signals.

14. The method of claim **13** wherein identifying the measure of signal variability comprises:

capturing a set of discrete sensor signal values for a given one of the sensor signals over a given time period; and

calculating a standard deviation of the discrete sensor signal values as the measure of signal variability.

15. The method of claim **13** wherein identifying the measure of signal variability comprises:

capturing a set of discrete sensor signal values for a given one of the sensor signals over a given time period; and